IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A communication system for increasing a capacity by implementing one-frequency reuse with a non-spread spectrum system, wherein:

a transmitting station side ~~transmits a transmitting~~ including at last two sending stations employing a different interleave method configured to transmit a transmission signal obtained by ~~a process of~~ segmenting transmission information into a plurality of frames, [[of]] encoding each frame, [[of]] power amplifying each encoded signal with a different amplitude, and [[of]] interleaving all signals with each amplified signal collected into one; and

a receiving station side ~~reproduces~~ configured to reproduce said transmitting signal into original segmental frames by ~~a process of~~ de-interleaving said transmitting signal from the at least two sending stations in correspondence to each different interleave method, [[of]] sequentially decoding codes of the signal in descending order of Signal-to-Interference and Noise power Ratio, and [[of]] re-encoding the decoded signal to successively cancel the re-encoded signal from said transmitting signal.

Claim 2 (Currently Amended): The communication system according to claim 1, wherein [[a]] the different interleaving ~~pattern is used for each user~~ methods correspond to different users.

Claim 3 (Currently Amended): The communication system according to claim 1, wherein [[a]] the different interleaving ~~pattern is used for each cell~~ methods correspond to different cells.

Claim 4 (Currently Amended): The communication system according to claim 1, wherein the transmitting station side is configured ~~so that~~ to change a rate of amplitude amplification for each frame ~~is changed~~ according to a decoding capability [[in]] of the receiving station side.

Claim 5 (Currently Amended): The communication system according to claim 1, wherein the transmitting station side is configured ~~so that~~ to determine the number of codes to be multiplexed ~~is determined~~ according to a decoding capability or a process capability ~~realizable in~~ of the receiving station side.

Claim 6 (Currently Amended): The communication system according to claim 1, wherein the transmitting station side is configured ~~so that~~ to monitor propagation path conditions such as traffic conditions ~~are monitored~~ at certain intervals to update an amplitude value of each code with reference to the number of considerable interference signals, the number of code words for one frame and noise power according to said propagation path conditions.

Claim 7 (Currently Amended): The communication system according to claim 6, wherein the transmitting station side is configured ~~so that~~ to perform calculation of the amplitude value of each code ~~is performed~~ by taking ~~advantage of~~ into account a residual interference power ~~composed of~~ including a power sum of undesired ~~waves having been~~ interference signals which are not ~~considered to be~~ the considerable interference signals ~~undesired waves~~.

Claim 8 (Currently Amended): The communication system according to claim 7, wherein the transmitting station side is configured ~~so that~~ to increase the amplitude of a low-level code ~~is increased~~ when an average residual interference power is of a relatively high level.

Claim 9 (Currently Amended): The communication system according to claim 8, wherein the transmitting station side is configured ~~so that~~ to adapt the adjustment of the number of considerable interference signals, the number of codes for one frame and an amplitude margin ~~is adapted~~ to maintain an average transmission power when an increase of the amplitude of the low-level code is attained.

Claim 10 (Currently Amended): A transmitting apparatus for transmitting information using a non-spread spectrum system, comprising:

frame segmenting means [[of]] for segmenting transmission information into a plurality of frames;

encoding means [[of]] for encoding each frame;

power amplification means [[of]] for power amplifying each encoded signal with different amplitude; said power amplification means changes a rate of amplitude amplification for each frame according to a decoding capability in a receiving station side;

interleaving means [[of]] for interleaving all signals with each amplified signal collected into one; and

transmitting means [[of]] for transmitting a transmitting signal obtained by the interleaving.

Claim 11 (Canceled).

Claim 12 (Currently Amended): The transmitting apparatus according to claim 10, wherein said frame segmenting means ~~is to determine~~ determines the number of codes to be multiplexed according to a decoding capability or a process capability ~~realizable in~~ of a receiving station side.

Claim 13 (Currently Amended): The transmitting apparatus according to claim 10, further comprising:

propagation path condition monitoring means [[of]] for monitoring propagation path conditions such as traffic conditions at ~~certain~~ predetermined intervals, wherein said power amplification means ~~is to update~~ updates an amplitude value of each code with reference to the number of considerable interference signals, and the number of code words for one frame and noise power according to said propagation path conditions.

Claim 14 (Currently Amended): The transmitting apparatus according to claim 13, wherein said power amplification means performs calculation of the amplitude value of each code by taking ~~advantage of~~ into account a residual interference power ~~composed of~~ including a power sum of ~~undesired waves having been~~ interference signals which are interference signals not ~~considered to be~~ the considerable interference signals ~~undesired waves~~.

Claim 15 (Currently Amended): The transmitting apparatus according to claim 14, wherein said power amplification means ~~is to increase~~ increases the amplitude of a low-level code when an average residual interference power is of a relatively high level.

Claim 16 (Currently Amended): The transmitting apparatus according to claim 15, wherein said power amplification means ~~is to adapt~~ adapts adjustment of the number of considerable interference signals, the number of codes for one frame, and an amplitude margin to maintain an average transmission power when an increase in the amplitude of the low-level code is attained.

Claim 17 (Currently Amended): A transmitting method for transmitting information using a non-spread spectrum system, comprising:

~~a frame segmenting step of~~ segmenting transmission information into a plurality of frames;

~~an encoding step of~~ encoding each frame;

~~a power amplification step of~~ power amplifying each encoded signal with different amplitude said power amplification means changes a rate of amplitude amplification for each frame according to a decoding capability in a receiving station side;

~~an interleaving step of~~ interleaving all signals with each amplified signal collected into one; and

~~a transmission step of~~ transmitting a transmitting signal obtained by the interleaving.

Claim 18 (Canceled).

Claim 19 (Currently Amended): The transmitting method according to claim 17, wherein said frame segmenting means ~~is to determine~~ determines the number of codes to be multiplexed according to a decoding capability or a process capability ~~realizable in~~ of a receiving station side.

Claim 20 (Currently Amended): The transmitting method according to claim 17, further comprising:

~~a propagation path condition monitoring step of~~ monitoring propagation path conditions such as traffic conditions at certain intervals, wherein said power amplification ~~step is to update~~ updates an amplitude value of each code with reference to the number of considerable interference signals, and the number of code words for one frame and the noise power according to said propagation path conditions.

Claim 21 (Currently Amended): The transmitting method according to claim 20, wherein said power amplification ~~step is to perform~~ performs calculation of the amplitude value of each code by taking into account ~~advantage of~~ a residual interference power ~~composed of a~~ including a power sum of ~~undesired waves having been~~ interference signals which are not ~~considered to be~~ the considerable interference signals ~~undesired waves~~.

Claim 22 (Currently Amended): The transmitting method according to claim 21, wherein said power amplification ~~step is to increase~~ increases the amplitude of a low-level code when an average residual interference power is of a relatively high level.

Claim 23 (Currently Amended): The transmitting method according to claim 22, wherein said power amplification ~~step is to adapt~~ adapts adjustment of the number of considerable interference signals, the number of codes for one frame, and an amplitude margin to maintain an average transmission power when an increase in the amplitude of the low-level code is attained.

Claim 24 (Currently Amended): A receiving apparatus, comprising:

receiving means for receiving a ~~transmitting~~ transmission signal from at least two sending stations, each employing a different interleave method, the transmission signal obtained by ~~a process of~~ encoding each frame resulting from segmentation of transmission information, [[of]] power amplifying each encoded signal with a different amplitude, and [[of]] interleaving all signals with each amplitude signal collected into one, ~~comprising:~~

de-interleaving means of de-interleaving said transmitting signal from the at least two sending stations in correspondence to each different interleave method;

decoding means of successively decoding codes of the signal in descending order of Signal-to-Interference and Noise power Ratio; and

signal canceling means of re-encoding the decoded signal to successively cancel the re-encoded signal from said transmitting signal.

Claim 25 (Currently Amended): A receiving method, comprising:

~~for~~ receiving a ~~transmitting~~ transmission signal from at least two sending stations each employing a different interleave method, the transmission signal obtained by ~~a process of~~ encoding each frame resulting from segmentation of transmission information, [[of]] power amplifying each encoded signal with a different amplitude, and [[of]] interleaving all signals with each amplitude signal collected into one, comprising:

~~a de-interleaving step of~~ de-interleaving said transmitting signal from the at least two sending stations in correspondence to each different interleave method;

~~a decoding step of~~ successively decoding codes of the signal in order of Signal to Interference and Noise power Ratio; and

~~a signal canceling step of~~ re-encoding the decoded signal to successively cancel of the re-encoded signal from said transmitting signal.

Claim 26 (Currently Amended): An unbalance code mixing method for carrying out an unbalance code mixing of information transmitted using a non-spread spectrum system, comprising:

~~a frame segmenting step of~~ segmenting transmission information into a plurality of frames;

~~an encoding step of~~ encoding each frame;

~~a power amplification step of~~ power amplifying each encoded signal with a different amplitude said amplification changes a rate of amplitude amplification for each frame according to a decoding capability in a receiving station side; and

~~an interleaving step of~~ interleaving all signals with each amplified signal collected into one.

Claim 27 (Canceled).

Claim 28 (Currently Amended): The unbalance code mixing method according to claim 26, wherein said frame segmenting ~~step is to determine~~ determines the number of codes to be multiplexed according to a decoding capability or a process capability realizable in a receiving station side.

Claim 29 (Currently Amended): The unbalance code mixing method according to claim 26, wherein said power amplification ~~step is to update~~ updates an amplitude value of each code with reference to the number of considerable interference signals, the number of code words for one frame and noise power according to said propagation path conditions.

Claim 30 (Currently Amended): The unbalance code mixing method according to claim 29, wherein said power amplification ~~step is to perform~~ performs calculation of the amplitude value of each code by taking into account ~~advantage of~~ a residual interference power ~~composed of a~~ including a power sum of ~~undesired waves having been~~ interference signals which are not ~~considered to be~~ the considerable interference signals ~~undesired waves~~.

Claim 31 (Currently Amended): The unbalance code mixing method according to claim 30, wherein said power amplification ~~step is to increase~~ increases the amplitude of a low-level code when an average residual interference power is of a relatively high level.

Claim 32 (Currently Amended): The unbalance code mixing method according to claim 31, wherein said power amplification ~~step is to adapt~~ adapts adjustment of the number of considerable interference signals, the number of code words for one frame and an amplitude margin to maintain an average transmission power, when an increase in the amplitude of the code of the low-level is attained.

Claim 33 (Currently Amended): A decoding method, comprising: ~~for~~

decoding a transmitting signal from at least two sending stations each employing a different interleave method, the transmission signal obtained by ~~a process of~~ encoding each frame resulting from segmentation of transmission information, [[of]] power amplifying each encoded signal with a different amplitude, and [[of]] interleaving all signals with each amplitude signal collected into one, comprising:

~~a de-interleaving step of~~ de-interleaving said transmitting signal from the at least two sending stations in correspondence to each different interleave method;

~~a decoding step of~~ decoding successively codes of the signal in descending order of Signal-to-Interference and Noise power Ratio; and

~~a canceling step of~~ re-encoding the decoded signal to successively cancel the re-encoded signal from said transmitting signal.